Arizona Electric EDI Standards
UDC Bill Data For ESP Consolidated Billing

VERSION: ANSI X12 810 Draft Standard Ver/Rel 4010 DRAFT

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810 **Invoice**

Functional Group=**IN**

This Draft Standard for Trial Use contains the format and establishes the data contents of the Invoice Transaction Set (810) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for customary and established business and industry practice relative to the billing for goods and services provided.

Notes:

3/070   Number of line items (CTT01) is the accumulation of the number of IT1 segments. If used, hash total (CTT02) is the sum of the value of quantities invoiced (IT102) for each IT1 segment.

General: Mandatory usage items inside detail and summary loops below imply that they are mandatory if the loop is present.

Heading:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
010	ST	Transaction Set Header	M	1			Mandatory
020	BIG	Beginning Segment for Invoice	M	1			Mandatory
030	NTE	Note/Special Instruction (customer or rate level messages)	O	100			Conditional
050	REF	Reference Identification (ESP assigned acct #)	O	12			Mandatory
050	REF	Reference Identification (UDC assigned acct #)	O	12			Mandatory

LOOP ID - N1					200		
070	N1	Name (UDC)	O	1			Mandatory
070	N1	Name (ESP)	O	1			Mandatory
130	ITD	Terms of Sale/Deferred Terms of Sale	O	>1			Mandatory
140	DTM	Date/Time Reference (Invoice period)	O	10			Mandatory

Detail:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage

LOOP ID - IT1 (METERED)					200000		
010	IT1	Baseline Item Data (Metered)	O	1			Mandatory
040	TXI	Tax Information (Meter level taxes)	O	10			Conditional
059	MEA	Measurements (Multiplier)	O	40			Mandatory
059	MEA	Measurements (Kilowatt hours)	O	40			Mandatory
059	MEA	Measurements (Demand KW)	O	40			Conditional
060	PID	Product/Item Description	O	1			Conditional
120	REF	Reference Identification (Days in period)	O	>1			Optional
120	REF	Reference Identification (UNI/SDP)	O	>1			Mandatory
120	REF	Reference Identification (Meter number)	O	>1			Mandatory
120	REF	Reference Identification (Utility rate)	O	>1			Mandatory
120	REF	Reference Identification (Cycle Number)	O	>1			Optional
120	REF	Reference Identification (Estimation codes)	O	>1			Conditional
150	DTM	Date/Time Reference	O	10			Conditional

LOOP ID - SLN					1000		
200	SLN	Subline Item Detail	O	1			Mandatory
230	SAC	Service, Promotion, Allowance, or Charge Information (Meter level charges)	O	25			Mandatory

LOOP ID - N1					**200**	
240	N1	Name (Customer)	O	1		Mandatory
260	N3	Address Information (Service address)	O	2		Mandatory
270	N4	Geographic Location	O	1		Optional

LOOP ID - IT1 (UNMET)					**200000**	
010	IT1	Baseline Item Data (Invoice)	O	1		Mandatory
040	TXI	Tax Information (Unmetered level taxes)	O	10		Conditional
059	MEA	Measurements (Count of unmetered devices)	O	40		Mandatory
060	PID	Product/Item Description	O	1		Conditional
120	REF	Reference Identification (Days in period)	O	>1		Optional
120	REF	Reference Identification (Utility rate)	O	>1		Mandatory
120	REF	Reference Identification (Cycle Number)	O	>1		Optional
150	DTM	Date/Time Reference (Service period)	O	10		Conditional

LOOP ID - SLN					**1000**	
200	SLN	Subline Item Detail	O	1		Mandatory
230	SAC	Service, Promotion, Allowance, or Charge Information	O	25		Mandatory

LOOP ID – N1					**200**	
240	N1	Name (Customer)	O	1		Mandatory
260	N3	Address Information (Service address)	O	2		Mandatory
270	N4	Geographic Location	O	1		Optional

LOOP ID - IT1 (ACCOUNT)					**200000**	
010	IT1	Baseline Item Data (Account)	O	1		Mandatory
040	TXI	Tax Information (Account level taxes)	O	10		Conditional
060	PID	Product/Item Description	O	1		Conditional
120	REF	Reference Identification (Days in period)	O	>1		Mandatory
120	REF	Reference Identification (Cycle Number)	O	>1		Optional
150	DTM	Date/Time Reference (Service period)	O	10		Conditional

LOOP ID - SLN					**1000**	
200	SLN	Subline Item Detail	O	1		Mandatory
230	SAC	Service, Promotion, Allowance, or Charge Information (Meter level charges)	O	25		Mandatory
237	TXI	Tax Information (Account/item level taxes)	O	10		Conditional

Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
010	TDS	Total Monetary Value Summary	M	1			Mandatory
070	CTT	Transaction Totals	O	1		N3/070	Recommended
080	SE	Transaction Set Trailer	M	1			Mandatory

ST   **Transaction Set Header**

To indicate the start of a transaction set and to assign a control number

Semantics:

1. The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

Notes:

Required

ST~810~0001

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ST01	**143**	**Transaction Set Identifier Code**	**M**	**ID**	**3/3**	**Mandatory**
		Description: Code uniquely identifying a Transaction Set				

Code	Name
810	Invoice

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ST02	**329**	**Transaction Set Control Number**	**M**	**AN**	**4/9**	**Mandatory**
		Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set				

BIG   **Beginning Segment for Invoice**

Pos: 020   Max: 1
Heading - Mandatory
Loop: N/A   Elements: 4

To indicate the beginning of an invoice transaction set and transmit identifying numbers and dates

Semantics:

1. BIG01 is the invoice issue date.
2. BIG03 is the date assigned by the purchaser to purchase order.
3. BIG10 indicates the consolidated invoice number. When BIG07 contains code CI, BIG10 is not used.

Comments:

1. BIG07 is used only to further define the type of invoice when needed.

Notes:

Required

BIG~19990201~19990201123500001~~~~~PR~00

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BIG01	373	**Date**	M	DT	8/8	**Mandatory**
		Description: Date expressed as CCYYMMDD				
		Notes: *Document creation date*				
BIG02	76	**Invoice Number**	M	AN	1/22	**Mandatory**
		Description: Identifying number assigned by issuer				
		Notes: *Unique document identifier by sender, such as invoice number.*				
BIG07	640	**Transaction Type Code**	O	ID	2/2	**Mandatory**
		Description: Code specifying the type of transaction				

	Code	**Name**
	FB	Final Bill

Notes: *Final bill ready items from the non-billing party.*

	Code	**Name**
	PR	Product (or Service)

Notes: *Regular service period bill items from the non-billing party.*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BIG08	353	**Transaction Set Purpose Code**	O	ID	2/2	**Mandatory**
		Description: Code identifying purpose of transaction set				

	Code	**Name**
	00	Original
	CO	Corrected

Notes: *Used to send rebill items from non-billing party.*

NTE   Note/Special Instruction (Customer or rate level messages)

<table>
<tr><td>Pos: 030</td><td>Max: 100</td></tr>
<tr><td colspan="2">Heading - Optional</td></tr>
<tr><td>Loop: N/A</td><td>Elements: 2</td></tr>
</table>

To transmit information in a free-form format, if necessary, for comment or special instruction

Comments:

1.   The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

Notes:

Conditional.
Used to explain or clarify billing charges from non-billing party. Recommend using non EDI method to deliver repetitive messages.

NTE~ADD~ADJUSTMENTS DUE TO POWER FACTOR CHANGE

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
NTE01	**363**	**Note Reference Code**	**O**	**ID**	**3/3**	**Mandatory**

Description: Code identifying the functional area or purpose for which the note applies

Code	Name
ADD	Additional Information

Notes: *Non-billing party messages. These are for special bill messages, and exclude repetitive and/or regulatory messages.*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
NTE02	**352**	**Description**	**M**	**AN**	**1/80**	**Mandatory**

Description: A free-form description to clarify the related data elements and their content

Notes: *Message text*

REF Reference Identification (ESP assigned customer account number)

Pos: 050   **Max: 12**
Heading - Optional
Loop: N/A   **Elements: 2**

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

Notes:

Required

REF~11~935668322

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier** **Description:** Code qualifying the Reference Identification	M	ID	2/3	Mandatory

Notes: *Energy Service Provider assigned account number for the end customer*

	Code	Name
	11	Account Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification** **Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	C	AN	1/30	Mandatory

Notes: *Account number*

REF   Reference Identification (UDC assigned customer account number)

<table>
<tr><td>Pos: 050</td><td>Max: 12</td></tr>
<tr><td colspan="2">Heading - Optional</td></tr>
<tr><td>Loop: N/A</td><td>Elements: 2</td></tr>
</table>

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

Notes:

Required

REF~12~123456789

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	**M**	**ID**	**2/3**	**Mandatory**
		Description: Code qualifying the Reference Identification				
		Notes: *Utility(UDC) assigned account number for the end customer*				

	Code	Name
	12	Billing Account

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification**	**C**	**AN**	**1/30**	**Mandatory**
		Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier				
		Notes: *Account number*				

N1 Name (UDC identification)

Pos: 070   Max: 1
Heading - Optional
Loop: N1   Elements: 5

To identify a party by type of organization, name, and code

Syntax:

R0203 -- At least one of N102 or N103 is required.
P0304 -- If either N103 or N104 are present, then the others are required.

Comments:

1. This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2. N105 and N106 further define the type of entity in N101.

Notes:

Required

N1~8S~UTILITY COMPANY~1~123456789~~41

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N101	98	**Entity Identifier Code**	M	ID	2/3	**Mandatory**
		Description: Code identifying an organizational entity, a physical location, property or an individual				

Code	Name
8S	Consumer Service Provider (CSP)

Notes: *Utility*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N102	93	**Name**	C	AN	1/60	**Conditional**
		Description: Free-form name				

Notes: *Entity name*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N103	66	**Identification Code Qualifier**	C	ID	1/2	**Conditional**
		Description: Code designating the system/method of code structure used for Identification Code (67)				

Code	Name
1	D-U-N-S Number, Dun & Bradstreet
9	D-U-N-S+4, D-U-N-S Number with Four Character Suffix

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N104	67	**Identification Code**	C	AN	2/80	**Conditional**
		Description: Code identifying a party or other code				
N106	98	**Entity Identifier Code**	O	ID	2/3	**Mandatory**
		Description: Code identifying an organizational entity, a physical location, property or an individual				

Code	Name
41	Submitter

N1   Name (ESP identification)

To identify a party by type of organization, name, and code

Syntax:

R0203 -- At least one of N102 or N103 is required.
P0304 -- If either N103 or N104 are present, then the others are required.

Comments:

1. This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2. N105 and N106 further define the type of entity in N101.

Notes:

Required

N1~SJ~ENERGY SERVICE PROVIDER~1~123456789~~40

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N101	98	**Entity Identifier Code**	M	ID	2/3	**Mandatory**
		Description: Code identifying an organizational entity, a physical location, property or an individual				

Code	Name
SJ	Service Provider

Notes: *Energy Service Provider*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N102	93	**Name**	C	AN	1/60	**Conditional**
		Description: Free-form name				

Notes: *Entity name*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N103	66	**Identification Code Qualifier**	C	ID	1/2	**Conditional**
		Description: Code designating the system/method of code structure used for Identification Code (67)				

Code	Name
1	D-U-N-S Number, Dun & Bradstreet
9	D-U-N-S+4, D-U-N-S Number with Four Character Suffix

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N104	67	**Identification Code**	C	AN	2/80	**Conditional**
		Description: Code identifying a party or other code				
N106	98	**Entity Identifier Code**	O	ID	2/3	**Mandatory**
		Description: Code identifying an organizational entity, a physical location, property or an individual				

Code	Name
40	Receiver

ITD

Terms of Sale/Deferred Terms of Sale (Payment due date)

Pos: 130	**Max: >1**
Heading - Optional	
Loop: N/A	**Elements: 1**

To specify terms of sale

Syntax:

1. ITD03 L03040513 -- If ITD03 is present, then at least one of ITD04, ITD05 or ITD13 is required.
2. ITD08 L08040513 -- If ITD08 is present, then at least one of ITD04, ITD05 or ITD13 is required.
3. ITD09 L091011 -- If ITD09 is present, then at least one of ITD10 or ITD11 is required.

Semantics:

1. ITD15 is the percentage applied to a base amount used to determine a late payment charge.

Comments:

1. If the code in ITD01 is "04", then ITD07 or ITD09 is required and either ITD10 or ITD11 is required; if the code in ITD01 is "05", then ITD06 or ITD07 is required.

Notes:
Required
ITD~~~~~~20000601

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ITD06	**446**	**Terms Net Due Date**	**O**	**DT**	**8/8**	**Mandatory**
		Description: Date when total invoice amount becomes due expressed in format CCYYMMDD				
		Notes: *Payment due date*				

DTM   Date/Time Reference (Billing period)

Pos: 140   Max: 10
Heading - Optional
Loop: N/A   Elements: 2

To specify pertinent dates and times

Syntax:

R020305 -- At least one of DTM02, DTM03 or DTM05 is required.
C0403 -- If DTM04 is present, then DTM03 is required
P0506 -- If either DTM05 or DTM06 are present, then the others are required.

Notes:

Required, reflects current billing period only

DTM~186~20000315
DTM~187~20000414

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	**374**	**Date/Time Qualifier**	**M**	**ID**	**3/3**	**Mandatory**
		Description: Code specifying type of date or time, or both date and time				

Code	Name
186	Invoice Period Start
187	Invoice Period End

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM02	**373**	**Date**	**C**	**DT**	**8/8**	**Mandatory**
		Description: Date expressed as CCYYMMDD				

IT1 **Baseline Item Data (Metered)**

To specify the basic and most frequently used line item data for the invoice and related transactions

Syntax:

P020304 -- If either IT102, IT103 or IT104 are present, then the others are required.
P0607 -- If either IT106 or IT107 are present, then the others are required.
P0809 -- If either IT108 or IT109 are present, then the others are required.
P1011 -- If either IT110 or IT111 are present, then the others are required.
P1213 -- If either IT112 or IT113 are present, then the others are required.
P1415 -- If either IT114 or IT115 are present, then the others are required.
P1617 -- If either IT116 or IT117 are present, then the others are required.
P1819 -- If either IT118 or IT119 are present, then the others are required.
P2021 -- If either IT120 or IT121 are present, then the others are required.
P2223 -- If either IT122 or IT123 are present, then the others are required.
P2425 -- If either IT124 or IT125 are present, then the others are required.

Semantics:

1. IT101 is the purchase order line item identification.

Comments:

1. Element 235/234 combinations should be interpreted to include products and/or services. See the Data Dictionary for a complete list of IDs.
2. IT106 through IT125 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

Notes:

Required

IT1~1~~~~~SV~EL~C3~METER

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IT101	**350**	**Assigned Identification**	**O**	**AN**	**1/20**	**Recommended**
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
		Notes: *Line item counter within IT1 loop*				
IT106	**235**	**Product/Service ID Qualifier**	**C**	**ID**	**2/2**	**Mandatory**
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				

Code	Name
SV	Service Rendered

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IT107	**234**	**Product/Service ID**	**C**	**AN**	**1/48**	**Mandatory**
		Description: Identifying number for a product or service				
		Notes: *Commodity*				
		EL Electric Service				
IT108	**235**	**Product/Service ID Qualifier**	**C**	**ID**	**2/2**	**Mandatory**
		Description: Code identifying the type/source of the descriptive number				

Ref	Id	Element Name	Req	Type	Min/Max	Usage

used in Product/Service ID (234)

	Code	Name
	C3	Classification

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IT109	**234**	**Product/Service ID**	C	AN	1/48	**Mandatory**

Description: Identifying number for a product or service

Notes: *Line item billing levels*

METER for meter level charges

TXI   Tax Information (Meter level taxes)

Pos: 040   Max: 10
Detail - Optional
Loop: IT1   Elements: 6

To specify tax information

Syntax:

R020306 -- At least one of TXI02, TXI03 or TXI06 is required.
P0405 -- If either TXI04 or TXI05 are present, then the others are required.
C0803 -- If TXI08 is present, then TXI03 is required

Semantics:

1. TXI02 is the monetary amount of the tax.
2. TXI03 is the tax percent expressed as a decimal.
3. TXI07 is a code indicating the relationship of the price or amount to the associated segment.

Notes:

Required if taxes exist and are billed at IT1 levels(Meter)
TXI~ZZ~4.55~~CD~ABC~~A~~~5
TXI~LS~8.10

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI01	**963**	**Tax Type Code**	M	ID	2/2	**Mandatory**

Description: Code specifying the type of tax

Code	Name
AT	Assessment for Regulatory Assessments
CP	County/Parish Sales Tax
CS	City Sales Tax
FR	Franchise Tax
LS	State and Local Sales Tax
ST	State Sales Tax
ZZ	Mutually Defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI02	**782**	**Monetary Amount**	C	R	1/18	**Mandatory**

Description: Monetary amount

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI04	**955**	**Tax Jurisdiction Code Qualifier**	C	ID	2/2	**Conditional**

Description: Code identifying the source of the data used in tax jurisdiction code

Notes: *Required if TXI01 = ZZ*

Code	Name
CD	Customer defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI05	**956**	**Tax Jurisdiction Code**	C	AN	1/10	**Conditional**

Description: Code identifying the taxing jurisdiction

Notes: *Required if TXI01= ZZ*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI07	**662**	**Relationship Code**	O	ID	1/1	**Optional**

Description: Code indicating the relationship between entities

Code	Name
A	Add

Notes: *The amount in TXI02 is included when summing the invoice total*

__Ref__	__Id__	__Element Name__	__Req__	__Type__	__Min/Max__	__Usage__

MEA   **Measurements (Multiplier)**

To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)

Syntax:

R03050608 -- At least one of MEA03, MEA05, MEA06 or MEA08 is required.
C0504 -- If MEA05 is present, then MEA04 is required
C0604 -- If MEA06 is present, then MEA04 is required
L07030506 -- If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.
E0803 -- Only one of MEA08 or MEA03 may be present.

Semantics:

1.   MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

Comments:

1.   When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes:

Required for metered account. If no multiplier exists, use value of 1 in MEA03

MEA~~MU~1

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA02	**738**	**Measurement Qualifier** **Description:** Code identifying a specific product or process characteristic to which a measurement applies	O	ID	1/3	**Mandatory**
		Notes: *Required when representing multiplier value*				

	Code	Name
	MU	Multiplier

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA03	**739**	**Measurement Value** **Description:** The value of the measurement	C	R	1/20	**Mandatory**
		Notes: If no multiplier exists, use value of 1 in MEA03				

MEA Measurements (Reads)

To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)

Syntax:

R03050608 -- At least one of MEA03, MEA05, MEA06 or MEA08 is required.
C0504 -- If MEA05 is present, then MEA04 is required
C0604 -- If MEA06 is present, then MEA04 is required
L07030506 -- If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.
E0803 -- Only one of MEA08 or MEA03 may be present.

Semantics:

1. MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

Comments:

1. When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes:

Required for metered account
MEA~AA~~3111~KH~62666~65777

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA01	737	**Measurement Reference ID Code**	O	ID	2/2	**Mandatory**
		Description: Code identifying the broad category to which a measurement applies				

| | | **Notes:** *Required to designate actual or estimated read* |

	Code
Name	
AA	Meter reading-beginning actual/ending actual
EE	Meter reading-beginning estimated/ending estimated
A E	Meter reading-beginning actual/ending estimated
EA	Meter reading-beginning estimated/ending actual
AN	Period Actual
EN	Period Estimated

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA03	739	**Measurement Value**	C	R	1/20	**Mandatory**
		Description: The value of the measurement				
		Notes: *Billable consumption with multiplier applied*				
MEA04	C001	**Composite Unit of Measure**	C	Comp		**Mandatory**
		Description: To identify a composite unit of measure(See Figures Appendix for examples of use)				
	355	**Unit or Basis for Measurement Code**	M	ID	2/2	**Mandatory**
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				

Code

Ref	Id	Element Name	Req	Type	Min/Max	Usage

Name
KH   Kilowatt Hour
K3   Kilovolt Amperes Reactive Hours (KVARH)

MEA05	**740**	**Range Minimum**	**C**	**R**	**1/20**	**Mandatory**

Description: The value specifying the minimum of the measurement range

Notes: *Beginning read*

MEA06	**741**	**Range Maximum**	**C**	**R**	**1/20**	**Mandatory**

Description: The value specifying the maximum of the measurement range

Notes: *Ending read*

MEA07	**935**	**Measurement Significance Code**	**C**	**ID**	**2/2**	**Conditional**

Code NAME
41   Off Peak
42   On Peak
45   Summer On Peak
49   Winter On Peak
57   Summer
58   Winter
66   Shoulder
73   Summer Off Peak
75   Winter Off Peak

For time of use (TOU) customers

MEA   Measurements (Demand)

To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)

Syntax:

R03050608 -- At least one of MEA03, MEA05, MEA06 or MEA08 is required.
C0504 -- If MEA05 is present, then MEA04 is required
C0604 -- If MEA06 is present, then MEA04 is required
L07030506 -- If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.
E0803 -- Only one of MEA08 or MEA03 may be present.

Semantics:

1.   MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

Comments:

1.   When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes:

Conditional. Required for metered accounts where demand is measured

MEA~AA~~125.44~K1~~50~41

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA01	**737**	**Measurement Reference ID Code**	**O**	**ID**	**2/2**	**Mandatory**
		Description: Code identifying the broad category to which a measurement applies				
		Notes: *Required to designate actual or estimated*				

	Code

Name	
AN	Period Actual
EN	Period Estimated

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA03	**739**	**Measurement Value**	**C**	**R**	**1/20**	**Mandatory**
		Description: The value of the measurement				
		Notes: *Billable* demand *with multiplier applied*				
MEA04	**C001**	**Composite Unit of Measure**	**C**	**Comp**		**Mandatory**
		Description: To identify a composite unit of measure(See Figures Appendix for examples of use)				
	355	**Unit or Basis for Measurement Code**	**M**	**ID**	**2/2**	**Mandatory**
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				

	Code

Name	
K1	Kilowatt Demand

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA06	**741**	**Range Maximum**	**C**	**R**	**1/20**	**Mandatory**

Description: The value specifying the maximum of the measurement range

Notes: *Required when representing kilowatt demand read without multiplier applied*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA07	**935**	**Measurement Significance Code**	**C**	**ID**	**2/2**	**Conditional**

Code NAME

41   Off Peak
42   On Peak
45   Summer On Peak
49   Winter On Peak
57   Summer
58   Winter
66   Shoulder
73   Summer Off Peak
75   Winter Off Peak

For time of use (TOU) customers

PID   Product/Item Description (Designate corrected vs. original)

To describe a product or process in coded or free-form format

Syntax:

1. PID04 C0403 -- If PID04 is present, then PID03 is required
2. PID04 R0405 -- At least one of PID04 or PID05 is required.
3. PID07 C0703 -- If PID07 is present, then PID03 is required
4. PID08 C0804 -- If PID08 is present, then PID04 is required
5. PID09 C0905 -- If PID09 is present, then PID05 is required

Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
4. PID09 is used to identify the language being used in PID05.

Comments:

1. If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2. Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3. PID07 specifies the individual code list of the agency specified in PID03.

Notes:

Conditional. Required for cancel/rebill to differentiate between corrected and original details.

PID~F~~~~CORRECTED
PID~F~~~~ORIGINAL

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID01	**349**	**Item Description Type**	**M**	**ID**	**1/1**	**Mandatory**
		Code Name				
		F Free-form				
PID05	**352**	**Description**	**C**	**AN**	**1/80**	**Mandatory**

REF   Reference Identification (Days in period)

<div style="text-align: right">

Pos: 120   **Max: >1**
Detail - Optional
Loop: IT1   Elements: 3

</div>

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

Notes:

Optional, and is generally used in cancel/rebill situations

REF~ZZ~~31

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	**Mandatory**
		Description: Code qualifying the Reference Identification				

Code	Name
ZZ	Mutually Defined

Notes: *Number of days in the usage period*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	352	**Description**	C	AN	1/80	**Mandatory**
		Description: A free-form description to clarify the related data elements and their content				

Notes: Number of days in period

REF **Reference Identification (UNI)**

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data re lating to the value cited in REF02.

Notes:

Required

REF~LU~~ABC123

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	**Mandatory**

Description: Code qualifying the Reference Identification

Code	Name
LU	Location Number

Notes: *Represents Universal Node Identifier UNI*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	352	**Description**	C	AN	1/80	**Mandatory**

Description: A free-form description to clarify the related data elements and their content

Notes: UNI

REF   Reference Identification (Meter number)

Pos: 120   Max: >1
Detail - Optional
Loop: IT1   Elements: 3

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1.   REF04 contains data relating to the value cited in REF02.

Notes:

Required for metered account

REF~MG~~ABC123

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	**Mandatory**

Description: Code qualifying the Reference Identification

Code	Name
MG	Meter Number

Notes: *Required for metered accounts*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	352	**Description**	C	AN	1/80	**Mandatory**

Description: A free-form description to clarify the related data elements and their content

Notes: Meter number or UMI depending on service territory

REF   **Reference Identification** (Utility rate)

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1.   REF04 contains data relating to the value cited in REF02.

Notes:

Required

REF~NH~~E36

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	**Mandatory**

Description: Code qualifying the Reference Identification

Code	Name
NH	Rate Card Number

Notes: *Utility rate class*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	352	**Description**	C	AN	1/80	**Mandatory**

Description: A free-form description to clarify the related data elements and their content

Notes: Rate

REF	**Reference Identification (Cycle Number)**	**Pos: 120** **Max: >1** **Detail - Optional** **Loop: IT1 Elements: 3**

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

Notes:

Optional

REF~TZ~~15

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**	**Mandatory**
		Description: Code qualifying the Reference Identification				

Code	Name
TZ	Total Cycle Number

Notes: *Meter cycle.*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	**352**	**Description**	**C**	**AN**	**1/80**	**Mandatory**
		Description: A free-form description to clarify the related data elements and their content				

Notes: Cycle number when the meter will be read

REF   Reference Identification (Estimation Reason codes)

Pos: 120   Max: >1
Detail - Optional
Loop: IT1   Elements: 3

To specify identifying information

Syntax:

1. REF02 R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

Notes:

1. This segment is required when the MEA01 = AA, EE, AE, EA, AN, or EN.

Notes:
Conditional, required if meter read is estimated
REF~ESN~EA1

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**	**Mandatory**

Description: Code qualifying the Reference Identification - Estimate Reason Code

Code	Name
ESN	Estimate Sequence Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	**127**	**Reference Identification**	**C**	**AN**	**1/30**	**Mandatory**

Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Code	Name
EA1	Extreme Weather - Flood
EA2	Extreme Weather - Snow
EA3	Extreme Weather - Storm
EA4	Extreme Weather
EA5	Labor Disagreement
EA6	Emergency
EB0	Self read not received from customer
EC1	No Access - Bad Animal
EC2	No Access - Gate Locked
EC3	No Access - Trim Foliage
EC4	No Access - No Answer at Premises
EC5	No Access - Meter Blocked

Ref	Id	Element Name	Req	Type	Min/Max	Usage
		EC6 = No Access - Irrigation				
		EC7 = No Access - Business Not Open				
		EC8 = No Access				
		ED1 = Customer Meter Equipment Failure				
		ED2 = Customer Meter Removed				
		ED3 = Customer Meter Changed				
		ED4 = Customer Dirty Meter Glass				
		EE0 = Read Not Received From Meter Reading Agent				
		EE1 = Other				
		EV1 = Meter Was Misread				
		EV2 = Zero Consumption - Check Failure				
		EV3 = High/Low Check Failure				
		EV4 = Meter in Test (Interval Estimate Only)				
		EV5 = Demand Not Reset				
		EV6 = Energy Diversion - Read Estimated				
		GE01 = MRSP Estimated				
		GE02 = UDC Estimated				
		GE03 = Automated Estimation				
		GE04 = Calculated Read				
		MA1 = Power Failure in Interval				
		MA2 = Meter Tamper				
		MS1 = Dead Meter				
		MS2 = Kit Faulted Service				
		MS3 = Kit Source Service				
		MS4 = Flatted in UDC				
		MS5 = Exposed Wiring				
		MS6 = Low Service Wire				
		MS7 = Meter Destroyed				
		MS8 = Broken Glass				
		MS9 = Service Wires in Trees				
		MS10 = Curled Dial				
		MS11 = Demand Won't Reset to Zero				
		MS12 = Wrong Meter Number				
		MS13 = Wrong Address				
		MS14 = Battery Failure				
		MS15 = Pot Light				
		MD1 = Wrong Color Seal				
		MD2 = Inverted Meter				
		MD3 = Meter Not Sealed				
		MD4 = Ring Damaged				
		MD5 = Jumpers Bypassed				
		MD6 = Diversion				
		MD7 = No Panel Seal				
		MD8 = Hole in Cover				

Ref	Id	Element Name	Req	Type	Min/Max	Usage
		MD9 = Disc Jammed				
		MD10 = Stolen Meter Installed				
		GT = Go to REF03 for Description				
REF03	**352**	**Description**	**C**	**AN**	**1/80**	**Conditional**

Description: A free-form description to clarify the related data elements and their content.

Notes: *Required if REF02 = GT*

DTM   Date/Time Reference (period start/stop dates)

To specify pertinent dates and times

Syntax:

R020305 -- At least one of DTM02, DTM03 or DTM05 is required.
C0403 -- If DTM04 is present, then DTM03 is required
P0506 -- If either DTM05 or DTM06 are present, then the others are required.

Notes:

Conditional. Used when period is different than the header, such as in cancel/rebill and requires sending prior period(s) detail

DTM~150~20000615
DTM~151~20000714

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	**374**	**Date/Time Qualifier**	**M**	**ID**	**3/3**	**Mandatory**
		Description: Code specifying type of date or time, or both date and time				

Code	Name
150	Service Period Start
151	Service Period End

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM02	**373**	**Date**	**C**	**DT**	**8/8**	**Mandatory**
		Description: Date expressed as CCYYMMDD				

SLN   Subline Item Detail

Pos: 200   Max: 1
Detail - Optional
Loop: SLN   Elements: 2

To specify product subline detail item data

Syntax:

1. SLN04 P0405 -- If either SLN04 or SLN05 are present, then the others are required.
2. SLN07 C0706 -- If SLN07 is present, then SLN06 is required
3. SLN08 C0806 -- If SLN08 is present, then SLN06 is required
4. SLN09 P0910 -- If either SLN09 or SLN10 are present, then the others are required.
5. SLN11 P1112 -- If either SLN11 or SLN12 are present, then the others are required.
6. SLN13 P1314 -- If either SLN13 or SLN14 are present, then the others are required.
7. SLN15 P1516 -- If either SLN15 or SLN16 are present, then the others are required.
8. SLN17 P1718 -- If either SLN17 or SLN18 are present, then the others are required.
9. SLN19 P1920 -- If either SLN19 or SLN20 are present, then the others are required.
10. SLN21 P2122 -- If either SLN21 or SLN22 are present, then the others are required.
11. SLN23 P2324 -- If either SLN23 or SLN24 are present, then the others are required.
12. SLN25 P2526 -- If either SLN25 or SLN26 are present, then the others are required.
13. SLN27 P2728 -- If either SLN27 or SLN28 are present, then the others are required.

Semantics:

1.   SLN01 is the identifying number for the subline item.
2.   SLN02 is the identifying number for the subline level. The subline level is analogous to the level code used in a bill of materials.
3.   SLN03 is the configuration code indicating the relationship o f the subline item to the baseline item.
4.   SLN08 is a code indicating the relationship of the price or amount to the associated segment.

Comments:

1.   See the Data Element Dictionary for a complete list of IDs.
2.   SLN01 is related to (but not necessarily equivalent to) the baseline item number. Example: 1.1 or 1A might be used as a subline number to relate to baseline number 1.
3.   SLN09 through SLN28 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

Notes:

Required if there are charges at a meter level

SLN~1~~A

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SLN01	**350**	**Assigned Identification**	**M**	**AN**	**1/20**	**Mandatory**
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
		Notes: *May be used as a loop counter for line item charges*				
SLN03	**662**	**Relationship Code**	**M**	**ID**	**1/1**	**Mandatory**
		Description: Code indicating the relationship between entities				

	Code	Name
	A	Add

SAC Service, Promotion, Allowance, or Charge Information (Charge type and amount)

Pos: 230   Max: 25
Detail - Optional
Loop: SLN   Elements: 5

To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

Syntax:

1. SAC02 R0203 -- At least one of SAC02 or SAC03 is required.
2. SAC03 P0304 -- If either SAC03 or SAC04 are present, then the others are required.
3. SAC06 P0607 -- If either SAC06 or SAC07 are present, then the others are required.
4. SAC09 P0910 -- If either SAC09 or SAC10 are present, then the others are required.
5. SAC11 C1110 -- If SAC11 is present, then SAC10 is required
6. SAC13 L130204 -- If SAC13 is present, then at least one of SAC02 or SAC04 is required.
7. SAC14 C1413 -- If SAC14 is present, then SAC13 is required
8. SAC16 C1615 -- If SAC16 is present, then SAC15 is required

Semantics:

1. If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
2. SAC05 is the total amount for the service, promotion, allowance, or charge.
3. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
4. SAC08 is the allowance or charge rate per unit.
5. SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
6. SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.
7. SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used.
8. SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion.
9. SAC16 is used to identify the language being used in SAC15.

Comments:

1. SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
2. In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

Notes:

Required if there are charges at a meter level

SAC~C~~EU~BAS001~1250~~~~~~~~~~BASIC SVC CHG

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SAC01	**248**	**Allowance or Charge Indicator**	**M**	**ID**	**1/1**	**Mandatory**
		Description: Code which indicates an allowance or charge for the service specified				

	Code	Name
	C	Charge

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SAC03	**559**	**Agency Qualifier Code**	**C**	**ID**	**2/2**	**Mandatory**
		Description: Code identifying the agency assigning the code values				

	Code	Name

Ref	Id	Element Name	Req	Type	Min/Max	Usage
		EU Electric Utilities				
SAC04	1301	**Agency Service, Promotion, Allowance, or Charge Code**	C	AN	1/10	**Mandatory**

Description: Agency maintained code identifying the service, promotion, allowance, or charge

Notes: *Required. Valid codes from UIG billing codes for SAC04 are below. Additional description is placed in SAC15*

DIS001 Distribution Charge

DSC012 Primary Voltage Credit

DSC001 Voltage Credit

MSC022 Competitive Transition Charge

MSC024 System Benefit Charge

ADJ002 Adjustment

MSC026 Interruptible Penalty

SMD016 Meter Read

SMD019 Meter Read Verify

DSC013 Transmission Voltage Credit

SER008 TOU Remote Metering

SMD000   No Access Charge

SMD015 Meter Ownership

SMD014 Meter Services

TRN000   Required Ancillary

GEN000   Fixed Must Run

PFA001 Power Factor

CRE004 Transformer Discount

DSC000 Primary Metering Discount

DMD000   First step kW

DMD000   Remaining kW

DMD007 On Peak kW Charge

DMD029 Shoulder kW Charge

DMD006 Off Peak kW Charge

ENC039 On Peak kWh Charge

ENC000 Shoulder kWh Charge

ENC003 Off Peak kWh Charge

ADJ000 Cancelled Bill

ADJ008 Miscellaneous Billing Adjustment

SER000 Interval Data Request Charge

ADJ000 Refund

SER000 Charge for Consumption Data

MSC007 Charge for Damaged Equipment

MSC000 Charges for Unauthorized Use of Service

HOC000 After Hour Establishment Fee

HOC000 Cancel Service Establishment Fee

HOC001 Service Establishment Fee

CRE000 Guarantee Home Refund

Ref	Id	Element Name	Req	Type	Min/Max	Usage

MSC000 Meter Test Charge

RCS001 Reconnect Fee

TEM001 Temporary Service Charge

CRE000 Residential Rate 70 Refund

TRS001 Charges Transferred

FFR000 Xray Charge

FAC000 Three Phase

BAS001 Basic Service Charge

FUE003 Fuel Adjustment

RCS000 Cancellation of Reconnect Fee

MSC000 Totalizer Charge

SUR001 ACC Regulatory Assessment

SUR000 Environmental Portfolio Surcharge

SUR000 RUCO Regulatory Assessment

MSC000 Flat rate Charge

DSC009 Energy Assistance Discount

SUR000 RTO Charge

| SAC05 | 610 | **Amount** | O | N2 | 1/15 | **Mandatory** |

Description: Monetary amount

Notes: *Dollar amounts may be positive or negative.*

| SAC15 | 352 | **Description** | C | AN | 1/80 | **Conditional** |

Description: A free-form description to clarify the related data elements and their content

Notes: *Description is required when SAC04 code is one of the following, or the suffix of the SAC04 code is 000:*

N1   Name (Customer)

To identify a party by type of organization, name, and code

Syntax:

1. N102 R0203 -- At least one of N102 or N103 is required.
2. N103 P0304 -- If either N103 or N104 are present, then the others are required.

Comments:

1. This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2. N105 and N106 further define the type of entity in N101.

Notes:

Required

N1~MQ~JOHN DOE

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N101	98	**Entity Identifier Code**	M	ID	2/3	**Mandatory**
		Description: Code identifying an organizational entity, a physical location, property or an individual				
		Notes: *Required.*				

Code	Name
MQ	Metering Location

Notes: *Customer representing service address*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N102	93	**Name**	C	AN	1/60	**Mandatory**
		Description: Free-form name				
		Notes: *Customer name*				

N3   Address Information (Service address)

Pos: 260	**Max: 2**
Detail - Optional	
Loop: N1	**Elements: 1**

To specify the location of the named party

Notes:
Required

N3~77 SUNSET STRIP

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N301	**166**	**Address Information**	**M**	**AN**	**1/55**	**Mandatory**
		Description: Address information				
		Notes: *Service address*				

N4   Geographic Location (Service city/state)

<div>
Pos: 270   Max: 1
Detail - Optional
Loop: N1 Elements: 2
</div>

To specify the geographic place of the named party

Syntax:

C0605 -- If N406 is present, then N405 is required

Comments:

1.   A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2.   N402 is required only if city name (N401) is in the U.S. or Canada.

Notes:

Optional.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N401	19	City Name	O	AN	2/30	Conditional
		Description: Free-form text for city name				
		Notes: *Required if address is within city/town*				
N402	156	State or Province Code	O	ID	2/2	Mandatory
		Description: Code (Standard State/Province) as defined by appropriate government agency				
		Notes: *Always AZ*				
N403	116	Postal Code	O	ID	3/15	Optional
		Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)				

IT1 Baseline Item Data (Unmetered)

Pos: 010   Max: 1
Detail - Optional
Loop: IT1   Elements: 5

To specify the basic and most frequently used line item data for the invoice and related transactions

Syntax:

P020304 -- If either IT102, IT103 or IT104 are present, then the others are required.
P0607 -- If either IT106 or IT107 are present, then the others are required.
P0809 -- If either IT108 or IT109 are present, then the others are required.
P1011 -- If either IT110 or IT111 are present, then the others are required.
P1213 -- If either IT112 or IT113 are present, then the others are required.
P1415 -- If either IT114 or IT115 are present, then the others are required.
P1617 -- If either IT116 or IT117 are present, then the others are required.
P1819 -- If either IT118 or IT119 are present, then the others are required.
P2021 -- If either IT120 or IT121 are present, then the others are required.
P2223 -- If either IT122 or IT123 are present, then the others are required.
P2425 -- If either IT124 or IT125 are present, then the others are required.

Semantics:

1. IT101 is the purchase order line item identification.

Comments:

1. Element 235/234 combinations should be interpreted to include products and/or services. See the Data Dictionary for a complete list of IDs.
2. IT106 through IT125 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

Notes:

Required

IT1~2~~~~~SV~EL~C3~UNMET

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IT101	**350**	**Assigned Identification**	**O**	**AN**	**1/20**	**Recommended**
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
		Notes: *Line item counter within IT1 loop*				
IT106	**235**	**Product/Service ID Qualifier**	**C**	**ID**	**2/2**	**Mandatory**
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				

	Code	Name
	SV	Service Rendered

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IT107	**234**	**Product/Service ID**	**C**	**AN**	**1/48**	**Mandatory**
		Description: Identifying number for a product or service				
		Notes: *Commodity*				
		EL Electric Service				
IT108	**235**	**Product/Service ID Qualifier**	**C**	**ID**	**2/2**	**Mandatory**
		Description: Code identifying the type/source of the descriptive number				

Ref	Id	Element Name	Req	Type	Min/Max	Usage

used in Product/Service ID (234)

	Code	**Name**
	C3	Classification

IT109	**234**	**Product/Service ID**	**C**	**AN**	**1/48**	**Mandatory**

Description: Identifying number for a product or service

Notes: *Line item billing levels*

UNMET for charges at unmetered accounts

TXI   Tax Information (Billing level taxes)

Pos: 040   Max: 10
Detail - Optional
Loop: IT1   Elements: 6

To specify tax information

Syntax:

R020306 -- At least one of TXI02, TXI03 or TXI06 is required.
P0405 -- If either TXI04 or TXI05 are present, then the others are required.
C0803 -- If TXI08 is present, then TXI03 is required

Semantics:

1. TXI02 is the monetary amount of the tax.
2. TXI03 is the tax percent expressed as a decimal.
3. TXI07 is a code indicating the relationship of the price or amount to the associated segment.

Notes:

Required if taxes exist and are billed at IT1 levels(Unmetered)

TXI~ZZ~4.55~~CD~ABC~~A~~~5
TXI~LS~8.10

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI01	**963**	**Tax Type Code**	M	ID	2/2	**Mandatory**

Description: Code specifying the type of tax

Code	Name
AT	Assessment for Regulatory Assessments
CP	County/Parish Sales Tax
CS	City Sales Tax
FR	FranchiseTax
LS	State and Local Sales Tax
ST	State Sales Tax
ZZ	Mutually Defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI02	**782**	**Monetary Amount**	C	R	1/18	**Mandatory**

Description: Monetary amount

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI04	**955**	**Tax Jurisdiction Code Qualifier**	C	ID	2/2	**Conditional**

Description: Code identifying the source of the data used in tax jurisdiction code

Notes: *Required if TXI01 = ZZ*

Code	Name
CD	Customer defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI05	**956**	**Tax Jurisdiction Code**	C	AN	1/10	**Conditional**

Description: Code identifying the taxing jurisdiction

Notes: *Required if TXI01= ZZ*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI07	**662**	**Relationship Code**	O	ID	1/1	**Optional**

Description: Code indicating the relationship between entities

Ref	Id	Element Name	Req	Type	Min/Max	Usage

Code	Name
A	Add

Notes: *The amount in TXI02 is included when summing the invoice total*

MEA   Measurements (Count of unmetered devices)

To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)

Syntax:

R03050608 -- At least one of MEA03, MEA05, MEA06 or MEA08 is required.
C0504 -- If MEA05 is present, then MEA04 is required
C0604 -- If MEA06 is present, then MEA04 is required
L07030506 -- If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.
E0803 -- Only one of MEA08 or MEA03 may be present.

Semantics:

1.   MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

Comments:

1.   When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes:

Required for count of umetered devices

MEA~~~1~EA

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA03	**739**	**Measurement Value** **Description:** The value of the measurement	C	R	1/20	**Mandatory**
		Notes: *Count of unmetered devices*				
MEA04	**C001**	**Composite Unit of Measure** **Description:** To identify a composite unit of measure(See Figures Appendix for examples of use)	C	Comp		**Mandatory**
	355	**Unit or Basis for Measurement Code** **Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	M	ID	2/2	**Mandatory**

Code	Name
EA	Each

<table>
<tr><td></td><td>Pos: 060</td><td>Max: 1</td></tr>
<tr><td></td><td colspan="2">Detail - Optional</td></tr>
<tr><td></td><td>Loop: PID</td><td>Elements: 2</td></tr>
</table>

PID   Product/Item Description (Designate corrected vs. original)

To describe a product or process in coded or free-form format

Syntax:

1. PID04 C0403 -- If PID04 is present, then PID03 is required
2. PID04 R0405 -- At least one of PID04 or PID05 is required.
3. PID07 C0703 -- If PID07 is present, then PID03 is required
4. PID08 C0804 -- If PID08 is present, then PID04 is required
5. PID09 C0905 -- If PID09 is present, then PID05 is required

Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
4. PID09 is used to identify the language being used in PID05.

Comments:

1. If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2. Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3. PID07 specifies the individual code list of the agency specified in PID03.

Notes:

Conditional. Required for cancel/rebill to differentiate between corrected and original details.

PID~F~~~~CORRECTED
PID~F~~~~ORIGINAL

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID01	**349**	**Item Description Type**	**M**	**ID**	**1/1**	**Mandatory**
		Code Name				
		F Free-form				
PID05	**352**	**Description**	**C**	**AN**	**1/80**	**Mandatory**

REF   Reference Identification (Days in period)

Pos: 120	**Max: >1**
Detail - Optional	
Loop: IT1	**Elements: 3**

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1.   REF04 contains data relating to the value cited in REF02.

Notes:

Optional, and is generally used in cancel/rebill situations

REF~ZZ~~31

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	**Mandatory**
		Description: Code qualifying the Reference Identification				

Code	Name
ZZ	Mutually Defined

Notes: *Number of days in the usage period*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	352	**Description**	C	AN	1/80	**Mandatory**
		Description: A free-form description to clarify the related data elements and their content				

Notes: Number of days in period

REF   Reference Identification (Utility rate)

Pos: 120   Max: >1
Detail - Optional
Loop: IT1   Elements: 3

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

Notes:
Required
REF~NH~~E36

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	**Mandatory**

Description: Code qualifying the Reference Identification

Code	Name
NH	Rate Card Number

Notes: *Utility rate class*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	352	**Description**	C	AN	1/80	**Mandatory**

Description: A free-form description to clarify the related data elements and their content

Notes: Rate

REF   Reference Identification (Cycle Number)

Pos: 120   Max: >1
Detail - Optional
Loop: IT1   Elements: 3

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1.   REF04 contains data relating to the value cited in REF02.

Notes:
Optional
REF~TZ~~15

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**	**Mandatory**
		Description: Code qualifying the Reference Identification				

Code	Name
TZ	Total Cycle Number

Notes: *Meter cycle.*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	**352**	**Description**	**C**	**AN**	**1/80**	**Mandatory**
		Description: A free-form description to clarify the related data elements and their content				

Notes: Cycle number when the meter will be read

DTM　Date/Time Reference (period start/stop dates)

To specify pertinent dates and times

Syntax:

R020305 -- At least one of DTM02, DTM03 or DTM05 is required.
C0403 -- If DTM04 is present, then DTM03 is required
P0506 -- If either DTM05 or DTM06 are present, then the others are required.

Notes:

Conditional. Used when period is different than the header, such as cancel/rebill and requires sending prior period(s) detail

DTM~150~20000615
DTM~151~20000714

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	Date/Time Qualifier	M	ID	3/3	Mandatory
		Description: Code specifying type of date or time, or both date and time				

Code	Name
150	Service Period Start
151	Service Period End

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM02	373	Date	C	DT	8/8	Mandatory
		Description: Date expressed as CCYYMMDD				

SLN   Subline Item Detail

To specify product subline detail item data

Syntax:

1. SLN04 P0405 -- If either SLN04 or SLN05 are present, then the others are required.
2. SLN07 C0706 -- If SLN07 is present, then SLN06 is required
3. SLN08 C0806 -- If SLN08 is present, then SLN06 is required
4. SLN09 P0910 -- If either SLN09 or SLN10 are present, then the others are required.
5. SLN11 P1112 -- If either SLN11 or SLN12 are present, then the others are required.
6. SLN13 P1314 -- If either SLN13 or SLN14 are present, then the others are required.
7. SLN15 P1516 -- If either SLN15 or SLN16 are present, then the others are required.
8. SLN17 P1718 -- If either SLN17 or SLN18 are present, then the others are required.
9. SLN19 P1920 -- If either SLN19 or SLN20 are present, then the others are required.
10. SLN21 P2122 -- If either SLN21 or SLN22 are present, then the others are required.
11. SLN23 P2324 -- If either SLN23 or SLN24 are present, then the others are required.
12. SLN25 P2526 -- If either SLN25 or SLN26 are present, then the others are required.
13. SLN27 P2728 -- If either SLN27 or SLN28 are present, then the others are required.

Semantics:

1. SLN01 is the identifying number for the subline item.
2. SLN02 is the identifying number for the subline level. The subline level is analogous to the level code used in a bill of materials.
3. SLN03 is the configuration code indicating the relationship of the subline item to the baseline item.
4. SLN08 is a code indicating the relationship of the price or amount to the associated segment.

Comments:

1. See the Data Element Dictionary for a complete list of IDs.
2. SLN01 is related to (but not necessarily equivalent to) the baseline item number. Example: 1.1 or 1A might be used as a subline number to relate to baseline number 1.
3. SLN09 through SLN28 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

Notes:

Required if there are charges at a detailed level

SLN~1~~A

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SLN01	**350**	**Assigned Identification**	**M**	**AN**	**1/20**	**Mandatory**
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
		Notes: *May be used as a loop counter for line item charges*				
SLN03	**662**	**Relationship Code**	**M**	**ID**	**1/1**	**Mandatory**
		Description: Code indicating the relationship between entities				

Code	Name
A	Add

Ref	Id	Element Name	Req	Type	Min/Max	Usage

SAC **Service, Promotion, Allowance, or Charge Information** (Charge type and amount)

Pos: 230	**Max: 25**
Detail - Optional	
Loop: SLN	**Elements: 5**

To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

Syntax:

1. SAC02 R0203 -- At least one of SAC02 or SAC03 is required.
2. SAC03 P0304 -- If either SAC03 or SAC04 are present, then the others are required.
3. SAC06 P0607 -- If either SAC06 or SAC07 are present, then the others are required.
4. SAC09 P0910 -- If either SAC09 or SAC10 are present, then the others are required.
5. SAC11 C1110 -- If SAC11 is present, then SAC10 is required
6. SAC13 L130204 -- If SAC13 is present, then at least one of SAC02 or SAC04 is required.
7. SAC14 C1413 -- If SAC14 is present, then SAC13 is required
8. SAC16 C1615 -- If SAC16 is present, then SAC15 is required

Semantics:

1. If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
2. SAC05 is the total amount for the service, promotion, allowance, or charge.
3. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
4. SAC08 is the allowance or charge rate per unit.
5. SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
6. SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.
7. SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used.
8. SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion.
9. SAC16 is used to identify the language being used in SAC15.

Comments:

1. SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
2. In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

Notes:

Required if there are charges at a detailed level

SAC~C~~EU~DIS001~1250~~~~~~~~~~DISTRIBUTION DELIVERY

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SAC01	248	**Allowance or Charge Indicator**	M	ID	1/1	**Mandatory**

Description: Code which indicates an allowance or charge for the service specified

Code	Name
C	Charge

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SAC03	559	**Agency Qualifier Code**	C	ID	2/2	**Mandatory**

Description: Code identifying the agency assigning the code values

Ref	Id	Element Name	Req	Type	Min/Max	Usage

| | | **Code**   **Name** | | | | |
| | | EU   Electric Utilities | | | | |

SAC04   1301   **Agency Service, Promotion, Allowance, or Charge Code**   C   AN   1/10   **Mandatory**

Description: Agency maintained code identifying the service, promotion, allowance, or charge

Notes: *Required. Valid codes from UIG billing codes for SAC04 are below. Additional description is placed in SAC15*

DIS001 Distribution Charge

ADJ002 Adjustment

MSC000 Flat Rate Charge

FFR001 Non Metered Service

TRN000 Required Ancillary

GEN000 Fixed Must Run

BAS001 Basic Service Charge

ADJ000 Cancelled Bill

ADJ008 Miscellaneous Billing Adjustment

ADJ000 Contract Adjustment

ADJ000 Refund

SER000 Charge for Consumption Data

MSC007 Charge for Damaged Equipment

HOC000 Cancel Service Establishment Fee

HOC001 Service Establishment Fee

TRS001 Charges Transferred

FFR000 Xray Charge

SUR000 RUCO Regulatory Assessment

SUR000 ACC Regulatory Assessment

SUR000 Environmental Portfolio Surcharge

FUE003 Fuel Adjustment

MSC024 System Benefit Charge

SAC05   610   **Amount**   O   N2   1/15   **Mandatory**

Description: Monetary amount

Notes: *Dollar amounts may be positive or negative.*

SAC15   352   **Description**   C   AN   1/80   **Conditional**

Description: A free-form description to clarify the related data elements and their content

Notes: *Description is required when SAC04 code is one of the following, or the suffix of the SAC04 code is 000:*

N1 Name (Customer)

To identify a party by type of organization, name, and code

Syntax:

1. N102 R0203 -- At least one of N102 or N103 is required.
2. N103 P0304 -- If either N103 or N104 are present, then the others are required.

Comments:

1. This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2. N105 and N106 further define the type of entity in N101.

Notes:

Required

N1~MQ~JOHN DOE

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N101	98	**Entity Identifier Code**	M	ID	2/3	**Mandatory**

Description: Code identifying an organizational entity, a physical location, property or an individual

Notes: *Required.*

Code	Name
MQ	Metering Location

Notes: *Customer representing service address*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N102	93	**Name**	C	AN	1/60	**Mandatory**

Description: Free-form name

Notes: *Customer name*

| **N3** | **Address Information** (Service address) | **Pos: 260**   **Max: 2** **Detail - Optional** **Loop: N1**   **Elements: 1** |

To specify the location of the named party

| **Notes:** |
| *Required* |

N3~77 SUNSET STRIP

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N301	**166**	**Address Information**	**M**	**AN**	**1/55**	**Mandatory**
		Description: Address information				
		Notes: *Service address*				

N4 Geographic Location (Service city/state)

To specify the geographic place of the named party

Syntax:

C0605 -- If N406 is present, then N405 is required

Comments:

1. A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2. N402 is required only if city name (N401) is in the U.S. or Canada.

Notes:
Optional.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N401	19	**City Name**	O	AN	2/30	**Conditional**
		Description: Free-form text for city name				
		Notes: *Required if address is within city/town*				
N402	156	**State or Province Code**	O	ID	2/2	**Mandatory**
		Description: Code (Standard State/Province) as defined by appropriate government agency				
		Notes: *Always AZ*				
N403	116	**Postal Code**	O	ID	3/15	**Optional**
		Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)				

IT1   Baseline Item Data (Account)

Pos: 010   **Max: 1**
Detail - Optional
Loop: IT1   Elements: 5

To specify the basic and most frequently used line item data for the invoice and related transactions

Syntax:

P020304 -- If either IT102, IT103 or IT104 are present, then the others are required.
P0607 -- If either IT106 or IT107 are present, then the others are required.
P0809 -- If either IT108 or IT109 are present, then the others are required.
P1011 -- If either IT110 or IT111 are present, then the others are required.
P1213 -- If either IT112 or IT113 are present, then the others are required.
P1415 -- If either IT114 or IT115 are present, then the others are required.
P1617 -- If either IT116 or IT117 are present, then the others are required.
P1819 -- If either IT118 or IT119 are present, then the others are required.
P2021 -- If either IT120 or IT121 are present, then the others are required.
P2223 -- If either IT122 or IT123 are present, then the others are required.
P2425 -- If either IT124 or IT125 are present, then the others are required.

Semantics:

1. IT101 is the purchase order line item identification.

Comments:

1. Element 235/234 combinations should be interpreted to include products and/or services. See the Data Dictionary for a complete list of IDs.
2. IT106 through IT125 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

Notes:

Required

IT1~2~~~~~SV~EL~C3~ACCOUNT

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IT101	**350**	**Assigned Identification**	**O**	**AN**	**1/20**	**Recommended**
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
		Notes: *Line item counter within IT1 loop*				
IT106	**235**	**Product/Service ID Qualifier**	**C**	**ID**	**2/2**	**Mandatory**
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				

        Code   **Name**
        SV   Service Rendered

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IT107	**234**	**Product/Service ID**	**C**	**AN**	**1/48**	**Mandatory**
		Description: Identifying number for a product or service				
		Notes: *Commodity*				
		EL Electric Service				
IT108	**235**	**Product/Service ID Qualifier**	**C**	**ID**	**2/2**	**Mandatory**
		Description: Code identifying the type/source of the descriptive number				

Ref	Id	Element Name	Req	Type	Min/Max	Usage
		used in Product/Service ID (234)				

Code	**Name**
C3	Classification

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IT109	**234**	**Product/Service ID**	C	AN	1/48	**Mandatory**

Description: Identifying number for a product or service

Notes: *Line item billing levels*

ACCOUNT for account level charges

TXI   Tax Information (Billing level taxes)

To specify tax information

Syntax:

R020306 -- At least one of TXI02, TXI03 or TXI06 is required.
P0405 -- If either TXI04 or TXI05 are present, then the others are required.
C0803 -- If TXI08 is present, then TXI03 is required

Semantics:

1. TXI02 is the monetary amount of the tax.
2. TXI03 is the tax percent expressed as a decimal.
3. TXI07 is a code indicating the relationship of the price or amount to the associated segment.

Notes:

Required if taxes exist and are billed at IT1 levels(Account)

TXI~ZZ~4.55~~CD~ABC~~A~~~5
TXI~LS~8.10

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI01	**963**	**Tax Type Code**	M	ID	2/2	**Mandatory**

Description: Code specifying the type of tax

Code	Name
AT	Assessment for Regulatory Assessments
CP	County/Parish Sales Tax
CS	City Sales Tax
FR	FranchiseTax
LS	State and Local Sales Tax
ST	State Sales Tax
ZZ	Mutually Defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI02	**782**	**Monetary Amount**	C	R	1/18	**Mandatory**

Description: Monetary amount

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI04	**955**	**Tax Jurisdiction Code Qualifier**	C	ID	2/2	**Conditional**

Description: Code identifying the source of the data used in tax jurisdiction code

Notes: *Required if TXI01 = ZZ*

Code	Name
CD	Customer defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI05	**956**	**Tax Jurisdiction Code**	C	AN	1/10	**Conditional**

Description: Code identifying the taxing jurisdiction

Notes: *Required if TXI01= ZZ*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI07	**662**	**Relationship Code**	O	ID	1/1	**Optional**

Description: Code indicating the relationship between entities

---

Ref	Id	Element Name	Req	Type	Min/Max	Usage

Code	Name
A	Add

Notes: *The amount in TXI02 is included when summing the invoice total*

PID	**Product/Item Description (Designate corrected vs. original)**	**Pos: 060 Max: 1**
		Detail - Optional
		Loop: PID Elements: 2

To describe a product or process in coded or free-form format

Syntax:

1. PID04 C0403 -- If PID04 is present, then PID03 is required
2. PID04 R0405 -- At least one of PID04 or PID05 is required.
3. PID07 C0703 -- If PID07 is present, then PID03 is required
4. PID08 C0804 -- If PID08 is present, then PID04 is required
5. PID09 C0905 -- If PID09 is present, then PID05 is required

Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
4. PID09 is used to identify the language being used in PID05.

Comments:

1. If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2. Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3. PID07 specifies the individual code list of the agency specified in PID03.

Notes:

Conditional. Required for cancel/rebill to differentiate between corrected and original details.

PID~F~~~~CORRECTED
PID~F~~~~ORIGINAL

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID01	**349**	**Item Description Type**	**M**	**ID**	**1/1**	**Mandatory**
		Code Name				
		F Free-form				
PID05	**352**	**Description**	**C**	**AN**	**1/80**	**Mandatory**

REF   **Reference Identification (Days in period)**

Pos: 120   Max: >1
Detail - Optional
Loop: IT1   Elements: 3

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1.   REF04 contains data relating to the value cited in REF02.

Notes:

Required

REF~ZZ~~31

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	**Mandatory**
		Description: Code qualifying the Reference Identification				

Code	Name
ZZ	Mutually Defined

Notes: *Number of days in the usage period*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	352	**Description**	C	AN	1/80	**Mandatory**
		Description: A free-form description to clarify the related data elements and their content				

Notes: Number of days in period

REF   **Reference Identification (Cycle Number)**

Pos: 120   Max: >1
Detail - Optional
Loop: IT1   Elements: 3

To specify identifying information

Syntax:

R0203 -- At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

Notes:

Optional

REF~TZ~~15

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**	**Mandatory**

Description: Code qualifying the Reference Identification

Code	Name
TZ	Total Cycle Number

Notes: *Meter cycle.*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	**352**	**Description**	**C**	**AN**	**1/80**	**Mandatory**

Description: A free-form description to clarify the related data elements and their content

Notes: Cycle number when the meter will be read

DTM   Date/Time Reference (period start/stop dates)

Pos: 150   Max: 10
Detail - Optional
Loop: IT1   Elements: 2

To specify pertinent dates and times

Syntax:

R020305 -- At least one of DTM02, DTM03 or DTM05 is required.
C0403 -- If DTM04 is present, then DTM03 is required
P0506 -- If either DTM05 or DTM06 are present, then the others are required.

Notes:

Conditional. Used when period is different than the header, such as cancel/rebill
Generally, the DTMs are paired but it is acceptable to use one to represent the period.

DTM~150~20000615
DTM~151~20000714

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	**374**	**Date/Time Qualifier**	**M**	**ID**	**3/3**	**Mandatory**
		Description: Code specifying type of date or time, or both date and time				

Code	Name
150	Service Period Start
151	Service Period End

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM02	**373**	**Date**	**C**	**DT**	**8/8**	**Mandatory**
		Description: Date expressed as CCYYMMDD				

SLN   Subline Item Detail

To specify product subline detail item data

Syntax:

1. SLN04 P0405 -- If either SLN04 or SLN05 are present, then the others are required.
2. SLN07 C0706 -- If SLN07 is present, then SLN06 is required
3. SLN08 C0806 -- If SLN08 is present, then SLN06 is required
4. SLN09 P0910 -- If either SLN09 or SLN10 are present, then the others are required.
5. SLN11 P1112 -- If either SLN11 or SLN12 are present, then the others are required.
6. SLN13 P1314 -- If either SLN13 or SLN14 are present, then the others are required.
7. SLN15 P1516 -- If either SLN15 or SLN16 are present, then the others are required.
8. SLN17 P1718 -- If either SLN17 or SLN18 are present, then the others are required.
9. SLN19 P1920 -- If either SLN19 or SLN20 are present, then the others are required.
10. SLN21 P2122 -- If either SLN21 or SLN22 are present, then the others are required.
11. SLN23 P2324 -- If either SLN23 or SLN24 are present, then the others are required.
12. SLN25 P2526 -- If either SLN25 or SLN26 are present, then the others are required.
13. SLN27 P2728 -- If either SLN27 or SLN28 are present, then the others are required.

Semantics:

1. SLN01 is the identifying number for the subline item.
2. SLN02 is the identifying number for the subline level. The subline level is analogous to the level code used in a bill of materials.
3. SLN03 is the configuration code indicating the relationship of the subline item to the baseline item.
4. SLN08 is a code indicating the relationship of the price or amount to the associated segment.

Comments:

1. See the Data Element Dictionary for a complete list of IDs.
2. SLN01 is related to (but not necessarily equivalent to) the baseline item number. Example: 1.1 or 1A might be used as a subline number to relate to baseline number 1.
3. SLN09 through SLN28 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

Notes:

Required if there are charges at a detailed level

SLN~1~~A

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SLN01	**350**	**Assigned Identification**	**M**	**AN**	**1/20**	**Mandatory**
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
		Notes: *May be used as a loop counter for line item charges*				
SLN03	**662**	**Relationship Code**	**M**	**ID**	**1/1**	**Mandatory**
		Description: Code indicating the relationship between entities				

	Code	**Name**
	A	Add

SAC Service, Promotion, Allowance, or Charge Information (Account level charges)

Pos: 230   Max: 1
Detail - Optional
Loop: SAC   Elements: 5

To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

Syntax:

1. SAC02 R0203 -- At least one of SAC02 or SAC03 is required.
2. SAC03 P0304 -- If either SAC03 or SAC04 are present, then the others are required.
3. SAC06 P0607 -- If either SAC06 or SAC07 are present, then the others are required.
4. SAC09 P0910 -- If either SAC09 or SAC10 are present, then the others are required.
5. SAC11 C1110 -- If SAC11 is present, then SAC10 is required
6. SAC13 L130204 -- If SAC13 is present, then at least one of SAC02 or SAC04 is required.
7. SAC14 C1413 -- If SAC14 is present, then SAC13 is required
8. SAC16 C1615 -- If SAC16 is present, then SAC15 is required

Semantics:

1. If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
2. SAC05 is the total amount for the service, promotion, allowance, or charge.
3. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
4. SAC08 is the allowance or charge rate per unit.
5. SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
6. SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.
7. SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used.
8. SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion.
9. SAC16 is used to identify the language being used in SAC15.

Comments:

1. SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
2. In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

Notes:

Required if there are charges at account level

SAC~C~~EU~BAS001~1250~~~~~~~~~~BASIC SVC CHG

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SAC01	248	**Allowance or Charge Indicator**	M	ID	1/1	**Mandatory**
		Description: Code which indicates an allowance or charge for the service specified				

Code	Name
C	Charge

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SAC03	559	**Agency Qualifier Code**	C	ID	2/2	**Mandatory**
		Description: Code identifying the agency assigning the code values				

Code	Name

Ref	Id	Element Name	Req	Type	Min/Max	Usage
		EU Electric Utilities				

SAC04   **1301**   **Agency Service, Promotion, Allowance, or Charge Code**   **C**   **AN**   **1/10**   **Mandatory**

Description: Agency maintained code identifying the service, promotion, allowance, or charge

Notes: *Required. Valid codes from UIG billing codes for SAC04 are below. Additional description is placed in SAC15*

ADJ002 Adjustment

BAS001 Basic Service Charge

DSC009 Energy Assistance Discount

HOC001 Service Establishment Fee

RCS001 Reconnect Fee

VCR001 Charitable Contribution

OLD001 Security Lighting Charge/Credit

MSC001 Miscellaneous Charge

MSC007 Charge for Damaged Equipment

SUR000 RUCO Regulatory Assessment

MSC024 System Benefit Charge

SUR000 ACC Regulatory Assessment

FFR000 Xray Charge

MSC000 Flat Rate Charge

CRE011 Service Quality Promises

RCS001 Cancellation of the Reconnect Fee

HOC000 After Hour Establishment Fee

HOC000 Direct Access Fee

HOC000 Cancellation of Direct Access Fee

TRS001 Charges Transferred

FAC000 Line Extension Charge

SAC05   **610**   **Amount**   **O**   **N2**   **1/15**   **Mandatory**

Description: Monetary amount

Notes: *Dollar amounts may be positive or negative.*

SAC13   **230**   **Reference Identification**   **O**   **AN**   **1/30**   **Conditional**

Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Notes: *Used for billing reason codes. Valid codes are:*

CONS01 Estimated Read

CONS02 Multiplier Error

CONS03 Back Dated Turn On/off

MET01 Meter Tampering

MET02 Switched Meters

MET03 Damaged Meter

NM01 Non-metered Account

Ref	Id	Element Name	Req	Type	Min/Max	Usage

OK Backout and Rebill the Same

OTH01 Other

RAT01 Rate

TAX01 Tax

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SAC15	**352**	**Description**	**C**	**AN**	**1/80**	**Conditional**

Description: A free-form description to clarify the related data elements and their content

Notes: *Description is required when SAC04 code is one of the following, or the suffix of the SAC04 code is 000:*

TXI   **Tax Information (Account/item level taxes)**

Pos: 237   Max: 10
Detail - Optional
Loop: IT1   Elements: 6

To specify tax information

Syntax:

R020306 -- At least one of TXI02, TXI03 or TXI06 is required.
P0405 -- If either TXI04 or TXI05 are present, then the others are required.
C0803 -- If TXI08 is present, then TXI03 is required

Semantics:

1. TXI02 is the monetary amount of the tax.
2. TXI03 is the tax percent expressed as a decimal.
3. TXI07 is a code indicating the relationship of the price or amount to the associated segment.

Notes:

Required if taxes exist and are billed at Account/item level(Account)

TXI~ZZ~4.55~~CD~ABC~~A~~~5
TXI~LS~8.10

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI01	**963**	**Tax Type Code**	**M**	**ID**	**2/2**	**Mandatory**

Description: Code specifying the type of tax

Code	Name
AT	Assessment for Regulatory Assessments
CP	County/Parish Sales Tax
CS	City Sales Tax
FR	FranchiseTax
LS	State and Local Sales Tax
ST	State Sales Tax
ZZ	Mutually Defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI02	**782**	**Monetary Amount**	**C**	**R**	**1/18**	**Mandatory**

Description: Monetary amount

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI04	**955**	**Tax Jurisdiction Code Qualifier**	**C**	**ID**	**2/2**	**Conditional**

Description: Code identifying the source of the data used in tax jurisdiction code

Notes: *Required if TXI01 = ZZ*

Code	Name
CD	Customer defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI05	**956**	**Tax Jurisdiction Code**	**C**	**AN**	**1/10**	**Conditional**

Description: Code identifying the taxing jurisdiction

Notes: *Required if TXI01= ZZ*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TXI07	**662**	**Relationship Code**	**O**	**ID**	**1/1**	**Optional**

Description: Code indicating the relationship between entities

---

Ref	Id	Element Name		Req	Type	Min/Max	Usage
		Code	**Name**				
		A	Add				

Notes: *The amount in TXI02 is included when summing the invoice total*

TDS   Total Monetary Value Summary

<table>
<tr><td>Pos: 010</td><td>Max: 1</td></tr>
<tr><td colspan="2">Summary - Mandatory</td></tr>
<tr><td>Loop: N/A</td><td>Elements: 1</td></tr>
</table>

To specify the total invoice discounts and amounts

Semantics:

1. TDS01 is the total amount of invoice (including charges, less allowances) before terms discount (if discount is applicable).
2. TDS02 indicates the amount upon which the terms discount amount is calculated.
3. TDS03 is the amount of invoice due if paid by terms discount due date (total invoice or installment amount less cash discount).
4. TDS04 indicates the total amount of terms discount.

Comments:

1. TDS02 is required if the dollar value subject to discount is not equal to the dollar value of TDS01.

Notes:

Required

TDS~53275

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TDS01	**610**	**Amount**	**M**	**N2**	**1/15**	**Mandatory**
		Description: Monetary amount				
		Notes: *Total dollar amount of non-billing party's invoice*				

CTT   **Transaction Totals**

To transmit a hash total for a specific element in the transaction set

Syntax:

1. CTT03 P0304 -- If either CTT03 or CTT04 are present, then the others are required.
2. CTT05 P0506 -- If either CTT05 or CTT06 are present, then the others are required.

Comments:

1. This segment is intended to provide hash totals to validate transaction completeness and correctness.

Notes:

Recommended

CTT~3

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
CTT01	354	**Number of Line Items**	M	N0	1/6	**Mandatory**

Description: Total number of line items in the transaction set

Notes: *Number of IT1 segments in detail section*

SE	**Transaction Set Trailer**	**Pos: 080 Max: 1** **Summary - Mandatory** **Loop: N/A Elements: 2**

To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

Comments:

1.   SE is the last segment of each transaction set.

Notes:

Required

SE~27~00052

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SE01	**96**	**Number of Included Segments** **Description:** Total number of segments included in a transaction set including ST and SE segments	**M**	**N0**	**1/10**	**Mandatory**
SE02	**329**	**Transaction Set Control Number** **Description:** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN**	**4/9**	**Mandatory**